27 August 2010 – Ocean Veritas Status Report – Cruise 16 – Day 3
Compiled by: Dan Pisegna, Fugro GEOS, Inc. (for BP)

Table 1 – Science Team Roster for 27 August 2010

Name	Affiliation	Role
Dan Pisegna	Fugro GEOS	Chief Scientist
Debbie Santavy	EPA	Observer
Claire McIntyre	DFO	Particle Analysis
Tom King	DFO	Particle Analysis
Shane Johnson	EM&A	Toxicology
Mark Deuger	Entrix	Sampling Technician
Connor Kobeski	Entrix	Sampling Technician
Christy Stephenson	NOAA	Data Management
Manuel Haenggi	Fugro GEOS	Oceanography Team
Robert Alexander	Fugro GEOS	Oceanography Team
Hannuman Bull	Fugro GEOS	Oceanography Team
Jeremy Peters	Fugro GEOS	Oceanography Team
Brian Moore	Fugro Chance	Navigation

Today's sampling plan, as directed by the Subsurface Monitoring Unit for 27 August 2010, was to start at Transect 3, Station 4 and work our way southeast along the transect until we have completed two consecutive stations with no sag/depression in dissolved oxygen. At that point, we were instructed to move to Transect 9 and sample Station 9 and Station 10. Upon completion of Transect 9, we were instructed to move to Transect 10 and sample Stations 18 through 16.

Today's weather conditions are summarized in Table 2, below.

Table 2 – Summary of the Weather for 27 AUG 2010

Time	Wind	Sea	Weather
07:00	SSE 15-20 knots	4-5 feet	Light Rain, Low 80's
12:00	SE 15-20 knots	3-5 feet	Light Rain, Low 80's
17:00	SSW 10-15 knots	3-4 feet	Light Rain, Low 80's

The cast for station OV208 (T3, S4) was conducted approximately 118 kilometers south-southwest of the wellhead to a depth of 1450 meters. There was no fluorescence signal, but a depression in dissolved oxygen was observed ranging from 1060 meters to 1165 meters. Two distinct dips were observed within the depression, one at 1065 meters (~0.6 mg/l) and 1139 meters (~0.1 mg/l). We continued southeast along Transect 3 and conducted the cast for station OV209 (T3, S5) approximately 126 kilometers south-southwest of the wellhead to a depth of 1600 meters. There was no fluorescence signal and no depression in dissolved oxygen for station OV209. We continued southeast along Transect 3 and conducted the cast for station OV210 (T3, S6), approximately 133 kilometers south-southwest of the wellhead, to a depth of 1700 meters. There was no fluorescence signal and no depression in dissolved oxygen for station OV210. Due to time constraints in regards to steaming to Transect 9 (~56 nautical miles, ~7 hour steam), it was decided that we sample a station closer to our position. We conducted our last cast for the day at station OV210 (T4, S4), approximately 133 kilometers south-southwest of the wellhead, to a depth of 1470 meters. There was no fluorescence signal and no depression in dissolved oxygen for station OV211.

The locations and results of the CTD casts conducted today are summarized in Table 3 and Figure 1, below.

Table 3 – Station Summary for 27 August 2010

Station	Sampling Location and Position at Deployment	Fluorescence Signal	Signal Depth	Dissolved Oxygen Depression	Depression Depth
OV208	T3,S4 Lat: 28.790336 Long: -88.926180	No Signal	-	~0.6 mg/l ~0.1 mg/l	1065 m (1060 m – 1095 m) 1139 m (1095 m – 1165 m)
OV209	T3, S5 Lat: 27.678555 Long: -88.842845	No Signal	-	No Depression	-
OV210	T3, S6 Lat: 27.577908 Long: -88.741369	No Signal	-	No Depression	-
OV211	T4 S4 Lat: 27.703929 Long: -89.046738	No Signal	-	No Depression	-

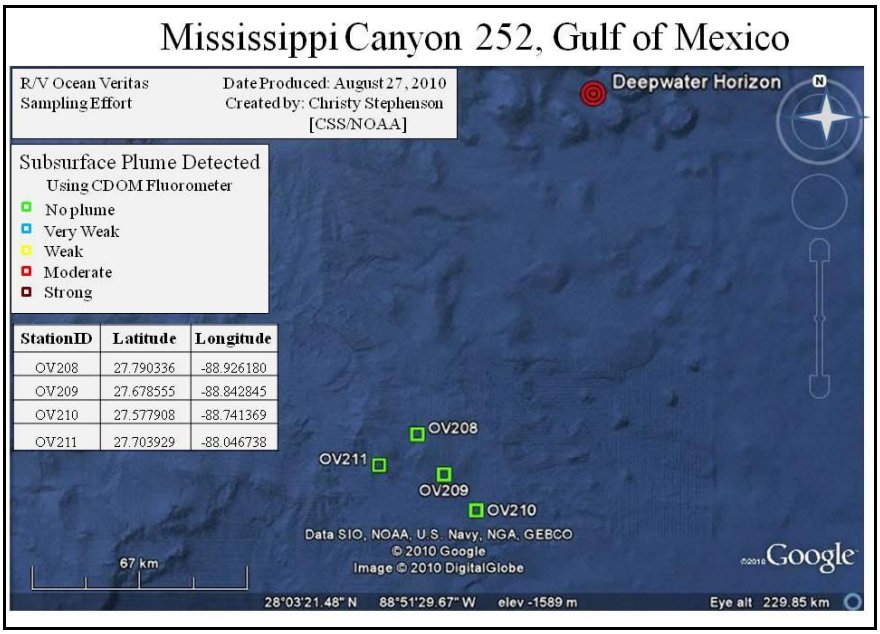

Figure 1 – Sampling Locations for 27 August 2010

No surface oil sheen was observed in any of the samples collected today. Comparisons of DO concentrations (CTD's SBE 43 oxygen sensor versus the hand-held YSI ProODO optic probe) are included in today's deliverables. Although the hand-held probe reads consistently several tenths mg/l dissolved oxygen higher than the CTD's oxygen sensor, the correlation between the two remains excellent.

All of today's stations were free of anomalies in particle size and fluorescence intensity. In fact, it was noted that the fluorescence intensities in the samples collected at the surface to 3 meters were slightly lower than what has been observed in the past weeks. LISST particle analysis and fluorescence intensity ratios are included in today's deliverables.

The results of yesterday's (26 AUG 2010) rotifer toxicity screening tests noted zero mortalities for all of the stations sampled. The results for 26 AUG 2010 are included in today's deliverables.

Rotifer toxicity screening tests were started for the following stations: OV208, OV209, OV210, and OV211. The results for 27 AUG 2010 will be reported on 28 AUG 2010. The stations and depths at which the screenings were conducted have been recorded in Table 4, below.

Table 4 - Rotoxkit M Analysis for 27 August 2010

Station	Depth	Station	Depth	Station	Depth	Station	Depth
OV208	Control	OV209	Control	OV210	Control	OV211	Control
OV208	1450 m	OV209	1600 m	OV210	1700 m	OV211	1470 m
OV208	1139 m	OV209	1300 m	OV210	1400 m	OV211	1200 m
OV208	1065 m	OV209	800 m	OV210	800 m	OV211	800 m
OV208	400 m	OV209	400 m	OV210	400 m	OV211	400 m
OV208	3 m	OV209	3 m	OV210	3 m	OV211	3 m